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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,748

11/20/2006

Morten Rise Hansen

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EXAMINER

FORTUNA, JOSE A

ART UNIT

PAPER NUMBER

1741

MAIL DATE

DELIVERY MODE

03/05/2012

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,748	Applicant(s) HANSEN, MORTEN RISE	
	Examiner /Jose A. Fortuna/	Art Unit 1741	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2012.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-5 and 7-25 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-5, 7-25 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

.Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-5 and 7-25 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Schmidt et al, US Patent No. 6,893,525, (hereafter Schmidt).

Schmidt teaches a method of making a dry-laid web, i.e., air laid, in which papermaking fibers are deposited onto a foraminous belt/fabric with low moisture content, i.e., air laying technique, then the web is pressurized and embossed and then a latex binder is added to either one surface of the formed web or to both surfaces of the web and then the binder is cured to bond the fibers, see column 4, line 45 through column 5, line 8. Schmidt teaches that such sequence of steps is very common in the art and it is called, pre-embossing process, which is as its name indicates the embossing is done prior to the bonding of it, which is opposed to the post-embossing technique in which the bonding is done prior to the embossing, see column 1, lines 28-33, see also US Patent No. 4,476,078. Schmidt teaches the formation of webs with grammage in the claimed range, i.e., overlapping grammage, see column 5, lines 56-62, i.e., they disclose basis weight between 25 to 400 pounds per 3000 ft², (converts to about 40 to about 651 g/m²). As to the coating grammage of the latex, Schmidt et al., teach that the levels of latex is from about 5 to 35% based in the dry web and dry binder, i.e., total weight, and as stated above, the grammage of the web in the range from about 40 to 651 g/m², which means that the coating web can be as low as $40 \times 0.05 = 2 \frac{g}{m^2}$, which falls within the claimed range. Note that about 5% covers 3% of latex or at least modifying, optimizing, the amount of latex would be within the levels of ordinary skill in the art.

They also teach the use of super absorbent polymers, column 6, lines 14-22 and teach that the air laid webs can be made by the methods of US Patent No. 5,128,082 which is incorporated by reference and such reference teaches that the SAP can be either added to the fibers or added to the consolidated web, see column 5, lines 7-26. Schmidt teaches that the binder, which is preferably latex, is sprayed onto the web and it is well known that when latex is sprayed, the latex is an very diluted aqueous solution, i.e. greater than 90% water, so that the binder particles do not clog the spraying nozzles¹. Schmidt teaches also the use of vacuum to assist the penetration of the latex into the fibers, see figure 1, stations **42** and **48** and better explained in the US Patent No. 5,128,082 which was incorporated by reference. Even though Schmidt et al. do not explicitly teach the lineal pressure², they incorporated by reference the teachings of US patent No. 4,612,231, and this patent shows that it is common to consolidate the web at lineal pressure between 50 to 300 lb/lineal inch, see column 5, lines 59-63 of the mentioned patent, such range overlapping the claimed range. As to the configuration of the embossing rolls, Schmidt teaches that it is preferred for the roll to have sinusoidal configurations, with raised bosses, i.e., tooth bosses, see column 8, lines 33-63. Schmidt et al. clearly teach, see paragraph bridging columns 5 and 6, that the web comprises essentially cellulosic fibers, see column 5, lines 59-63, and that synthetic fibers could be used. Even though Schmidt et al. do not explicitly teach the claimed property, i.e., the dust due to fluff, this property must be inherent to the produced web, since they

¹ See US 5,824,191 see examples or US Patent Application Publication No. 2005/0045295, see ¶-[0102]-[0104], Just to mention a couple.

² Since it is not known what exerts this pressure, i.e., the consolidation pressure or the embossing pressure, for the purpose of this action, it would be considered the consolidation pressure.

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are made using the same ingredients, i.e., raw materials, and using the same process of making.

Note that claim 21 has been written as a product by process claim and the web of the cited reference, as explained *supra*, seem to be the same as the one claimed. In the event any differences can be shown for the product -by-process claim 1 as opposed to the product taught by the reference Schmidt et al. such differences would have been obvious to one of ordinary skill in the art as routine modification of the product in the absence of a showing unexpected results, see *In re Thorpe*, 227 USPQ 964 (CAFC 1985). As the afore mentioned claims are product by process claims, it is deemed that "[A]ny difference imparted by the product by process claims would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicants to establish that their product is patentably distinct, ..." In *re Brown*, 173 U.S.P.Q. 685, and *In re Fessmann*, 180 U.S.P.Q. 324. Further, "[P]rocess limitations are significant only to the extent that they distinguish the claimed product over the prior art product." *In re Luck*, 177 U.S.P.Q. 523 (1973).

It seems that Schmidt teaches all the limitations of the process or at the very least the minor modification(s), e.g., adding less latex to the web, i.e., optimizing the amount of latex in the final product, would have been obvious to one of ordinary skill in the art, since he/she would have reasonable expectation of success.

7. Claims 1-5 and 7-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaiser et al., US patent No. 4,296,161, (hereafter Kaiser).

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Kaiser teaches a dry-formed, air-formed, web, which is embossed and the bonded with latex at rate falling within the claimed range, i.e., not more than 5.1 g/m^2 , see abstract.

Kaiser teaches also that the web has grammage within the claimed range and embossing pressures which also fall within the claimed range, se column 3, lines 46-63. The temperature of the curing of the latex falls also within the claimed range, see column 4, lines 53-68. Kaiser et al. fail to teach the dilution of the latex at the claimed range.

However, as discussed above the dilution of the latex at the claimed levels is well known in the art and therefore one of ordinary skill in the art would have reasonable expectation of success if the binder is diluted to the claimed range. Note that even though Kaiser does not teach the properties of the web as claimed in the independent claim and product claim, claim 21, these properties would be considered to be inherent to the process of the reference, since the process of making is very similar or at the very least the modification to obtain the claimed invention would have been obvious to one of ordinary skill in the art. Note that the modifications would be in the use of the latex in the claimed concentration and the add-on levels in the final web. However as explained above the dilution of the latex to claimed levels is obvious, since it is known; and the add-on levels is also an optimizable variable.

Response to Arguments

8. Applicant's arguments with respect to claims 1-5 and 7-25 have been considered but are moot in view of the new ground(s) of rejection.

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Applicants argue that air laid webs have different properties than the wet-laid webs. This the examiner agrees, yet the cited references are drawn to air-laid webs and therefore, the arguments are not understood.

Also, applicants argue that one of the most important aspects is that the latex is added in a diluted aqueous emulsion. Yet, the rejection responded to that limitation by citing several references, evidentiary references, which teach that when spraying latex emulsions the latex should be diluted to be within the claimed range, because otherwise the nozzles would clog. Note that that teaching is not linked to the process of making the web or any other material; it is just a statement of a fact.

As to the product claims, claim 21, method steps are only significant when it can be proven that such steps makes a materially different product, i.e., distinguish the product from the prior art. "[P]rocess limitations are significant only to the extent that they distinguish the claimed product over the prior art product." *In re Luck*, 177 U.S.P.Q. 523 (1973).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure in the art of "Making Embossed Air-Laid Webs."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Jose A. Fortuna/ whose telephone number is (571)272-1188. The examiner can normally be reached on 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew J. Daniels can be reached on 571-272-2450. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jose A. Fortuna/
Primary Examiner
Art Unit 1741

JAF